

Burnett, (S. M.)

The Dioptry again.

BY ✓

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WASHINGTON.

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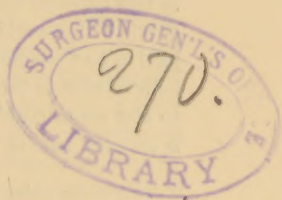
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## THE DIOPTRY AGAIN.

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1734 K STREET, WASHINGTON, D. C., *September 27, 1886.*

*To the Editor of the New York Medical Journal:*

SIR: The readers of this journal have, no doubt, had as much of the "dioptry" discussion as they care for, and, so far as I am concerned, the matter may now rest on its merits. But, before leaving it finally, there are some statements made in Dr. Loring's paper, in the number for September 25th, which I think should not be allowed to go by unnoticed and uncontroverted. The spelling of a word in the English language, where so much liberty in such matters is allowed, is a small affair, but fairness and justness are by no means insignificant things, and in their cause I wish to add yet a few words.

Dr. Loring cites a number of words ending in *ic* which he calls substantives, and, in the common parlance of the street and shop, they do perform the functions of nouns, but yet they are simply adjectives with the noun understood. When we speak of a "tonic," we mean a "tonic medicine" or remedy; of an "epidemic," we mean an epidemic disease. Of the formation of such so-called nouns (and of verbs from nouns, for that matter) there is no end, each day, almost, bringing forth its contingent. We read and speak of "sphericals" and "cylindricals" (one writer I know of even going so far as to use "spheric" and "cylindric"); and yet there is no warrant for them by law or good usage. Shall we, then, because there exists in our nomenclature a lot of words which have got into it

in this slipshod kind of way, foist another upon a long-suffering public? To avoid confusion and conduce to accuracy, the adjective and the noun should have different terminations; and I believe ours is the only language which tolerates this double use to any considerable extent, and I do not think that this leniency is counted among its virtues.

Another objection to "dioptre" is that it has been already pre-empted by the French for another use. Robin, in his recent "Dictionnaire de médecine," says it means a *speculum*.

I do not want to think that Dr. Loring would knowingly misrepresent me, and yet, when he says that "I frankly confess that I do not understand what Dr. Burnett means when he says, 'A metre-lens is one having a focus of one metre, and this entirely independent of its radius of curvature and index of refraction,' I cannot imagine any system of lenses, metric or other, independent of radius of curvature or index of refraction," he must mean to imply, if he means anything, that I consider that the metre-lens has neither radius of curvature nor index of refraction.

It would seem that my capacity to appreciate (as I believe I do) the excellent optical appendix which Dr. Loring has given in his text-book, which is the foundation of this discussion, and the fact that I have spoken of it in the highest praise whenever an opportunity has offered, have not been sufficient to protect me from such an insinuation of ignorance and stupidity. If Dr. Loring had read the rest of the paragraph of which the sentence quoted is the beginning, he would have discovered, I think, exactly what I mean, and would have found also a complete refutation of the whole of his argument on that point; and to this paragraph I would refer any reader who cares to know what I meant by that sentence, and, if he is of average intelligence, I think he will have no difficulty in finding out.

The chief point I made against Dr. Loring in the first instance was that he had not used the English inch as his standard, and the sublimity of my patriotism is duly recognized because I do not accept with him the French inch, and put my written *e*'s in the place where they will have the sound we give



them in our speech. This is, after all, in a certain measure, a matter of taste, and, if Dr. Loring chooses, he can adopt for his writings the French inch, but I think we who read his book have a right to expect from him that courtesy to the standard inch of his native land (we have supposed him to be an American) which has been accorded it by most foreign writers—at least a mere mention that there *are* such things as an English inch and its equivalent in dioptric values. Dr. Loring wants to know “who the manufacturing opticians are that furnish glasses ground to the English inch on oculists’ and physicians’ orders.” I have before me a book of prescription-blanks upon the house of Meyrowitz Brothers, New York, and on the inside of the cover are printed these words: “*All* trial-cases are numbered in *English* inches, and consequently 40 is nearer 1 D than 36.” The Italics are theirs. I have a similar book of blanks from Meyer’s Sons, New York, with the same statement, and the “Geneva Optical Co.” wrote me that their lenses are ground to the English inch, but that the French can be used if ordered. The extensive manufacturing company of Queen & Co., of Philadelphia, say in one of their circulars: “In the new or metric system of numbering spectacles and test-lenses the unit is the dioptry (written also dioptre and dioptric, and abbreviated D), which is a lens having a focal distance of 1 metre = 39.37 English or American inches = 36.96 Paris or French inches.” And they state, further, that they “are prepared to furnish lenses accurately ground according to either the dioptric or inch system.” And, as these firms have furnished a large number of trial-cases to the physicians of the United States for several years, Dr. Loring may be even now knowing—unconsciously—“an oculist or practicing physician in this country who uses a test-case the glasses of which are ground to the English inch.” It is all right and proper that Donders or other Netherlandish writers should use the French inch, because it is the inch with which their men of science are familiar, as their men of culture are with the French tongue, in which language, indeed, a large part of their scientific contributions are printed; but Dr. Loring would hardly expect a communication in French sent to any of our prominent medical journals to be printed and

generally read. If he wishes to reach the profession in this country he writes in English. Moreover, Donders did not write his book in English. It was written in Dutch, and translated into English by Dr. Moore, as stated on the title-page.

But, after all, this is not a personal matter, but one wholly of scientific interest. Dr. Loring has the very laudable desire to strip ophthalmoscopy and refraction of all useless technicalities, and thinks much may be done toward this end by the "assumption, which is near enough for all practical purposes, that the focal length of a biconvex or biconcave lens is equal to the radius of curvature upon which it is ground." A man who knows that and no more does not need to know that much. Say nothing about radius of curvature, and simply tell him that the focus of a lens is the point of union of parallel rays after refraction. The metric system does this, and, if properly used, will go far toward the establishment of that simplicity which Dr. Loring and all the rest of us want, for the benefit of the student.

In conclusion, to "settle the matter at once" and close the discussion on Dr. Loring's own proposition, I will "cite the names of such scholars [and ophthalmologists] as say 'dioptric' is not a scholarly word, or, better still, that it is not so scholarly as 'dioptry.'" Dr. Noyes, of New York, uses "dioptry" in his text-book on the eye, published by Wood & Co. Dr. Knapp, of New York, uses "dioptry," and it is the only form of spelling used in the "Archives of Ophthalmology." Dr. Alt, editor of the "American Journal of Ophthalmology," uses only "dioptry." Dr. Schell, of Philadelphia, in his treatise on the eye, gives preference to "dioptry." Dr. Mittendorf is the only one of Dr. Loring's colleagues in New York, so far as I am at present aware (though there may be some others), who uses "dioptric," and even he may have "reformed" in this particular since the publication of his text-book in 1881.

And, finally, Dr. Landolt, than whom Dr. Loring, for his part, desires no higher authority, in his late work on refraction and accommodation, the translation of which, into English, was made under his own supervision, uses "dioptry" as the English equivalent for "dioptric." After a Frenchman has

said that "dioptry" is the proper English word, is there anything left for us to do but to accept it?

For my own part, I am willing to leave the whole question to the American Ophthalmological Society, and I hope some one will bring it to the notice of the society at its next meeting; and, should it arrive at anything like a unanimous conclusion, I am willing to abide by it, whatever it may be.

I am, sir, yours very truly,

SWAN M. BURNETT.











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